Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Division

Name of Work : Construction and Development of roads and drains at Nagenahalli layout, Vinayka layout, Balaji layout main and cross roads and surrounding areas in ward no - 02 of Yelahanka sub division

									Est Cost: 150.00 Lakhs
Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Civil Work								
1	KSRRB 300-1. **Earthwork excavation by manual means** for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications (I No-19.1,P No-141), 8km lead = (1.28x2x8)+57.								
	Basic rate	130.00							
	Area Weightage 6%	7.80							
	Loading and Unloding & Lead	77.48							
	Total	**215.28**							
	CC Drain	**Cum**							
	Nagenahalli								
	Suryavamshi Layout								
	Near Apartment		1	56.00	1.10	0.90	55.44		
	LHS		1	137.00	1.10	0.90	135.63		
	RHS		1	101.00	1.10	0.90	99.99		
	LHS		1	13.60	1.10	0.90	13.46		
	RHS		1	13.60	1.10	0.90	13.46		
	LHS		1	141.00	1.10	0.90	139.59		
	RHS		1	152.00	1.10	1.00	167.20		
	Cross Road - 1		1	48.00	1.00	1.00	48.00		
	Culverts		1	14.00	1.80	1.00	25.20		
							697.98	**215.28**	**150260.70**
2	KSRB 4-1.2 : Providing and laying in **position plain cement concrete of Mix 1:3:6** with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. (P.No-13,I No-4.2,KPWD SR 2018-19)								
	Basic rate	5194.00							
	Area Weightage 6%	311.64							
	Total	**5505.64**							
	CC Drain	**Cum**							
	Nagenahalli								
	Suryavamshi Layout								
	Near Apartment		1	56.00	1.10	0.15	9.24		
	LHS		1	137.00	1.10	0.15	22.61		
	RHS		1	101.00	1.10	0.15	16.67		
	LHS		1	13.60	1.10	0.15	2.24		
	RHS		1	13.60	1.10	0.15	2.24		
	LHS		1	141.00	1.10	0.15	23.27		
	RHS		1	152.00	1.10	0.15	25.08		
	Cross Road - 1		1	48.00	0.90	0.15	6.48		
	Culverts		1	14.00	1.80	0.15	3.78		
							111.60	**5505.64**	**614445.94**

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
3	Providing and laying **plain/reinforced cement concrete** for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm (I No-37.59.2,P No-271,KPWD SR 2018-19)								
	Basic rate	6670.00							
	Area Weightage 6%	400.20							
	Total	**7070.20**							
	CC Drain Raft	**Cum**							
	Nagenahalli								
	Suryavamshi Layout								
	Near Apartment		1	56.00	0.90	0.15	7.56		
	LHS		1	137.00	0.90	0.15	18.50		
	RHS		1	101.00	0.90	0.15	13.64		
	LHS		1	13.60	0.90	0.15	1.84		
	RHS		1	13.60	0.90	0.15	1.84		
	LHS		1	141.00	0.90	0.15	19.04		
	RHS		1	152.00	0.90	0.15	20.52		
	Cross Road - 1		1	48.00	0.75	0.15	5.40		
	CC Drain Wall								
	Near Apartment		2	56.00	0.15	0.65	10.92		
	LHS		2	137.00	0.15	0.65	26.72		
	RHS		2	101.00	0.15	0.65	19.70		
	LHS		2	13.60	0.15	0.65	2.65		
	RHS		2	13.60	0.15	0.65	2.65		
	LHS		2	141.00	0.15	0.65	27.50		
	RHS		2	152.00	0.15	0.65	29.64		
	Cross Road - 1		1	48.00	0.15	0.60	4.32		
							212.41		
	Culverts		1	14.00	1.50	0.20	4.20		
	Culverts Wall		2	14.00	0.23	0.60	3.86		
							8.06		
							220.47	**7070.20**	**1558766.99**
4	KSRRB M2200-6. **Providing T.M.T. steel reinforcement** for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200(I No-28.8.2,P No-229)								
	Basic rate	68233.00							
	Area Weightage 6%	4093.98							
	Total	**72326.98**							
	Consider 60kg/Cum for Drain	**Tn**	1	212.41	60.00		12744.36		
	Consider 90kg/Cum for Drain		1	8.06	90.00		725.76		
							13470.12		
							13.47	**72326.98**	**974253.10**
5	Providing and Fixing **pre cast covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)								

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Data rate	5418.00							
	Culverts	**Sqm**	1	14.00	1.50		21.00		
							21.00	**5418.00**	**113778.00**
6	Providing and Fixing **pre cast covering Slab** made out of CC 1:2:4 with **10cm thick** and Finishing cutting , including form work, cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	Data rate	2337.00							
	CC Drain Top Covering Slab	**Sqm**							
	Nagenahalli								
	Suryavamshi Layout								
	Near Apartment		1	56.00	0.90		50.40		
	LHS		1	137.00	0.90		123.30		
	RHS		1	101.00	0.90		90.90		
	LHS		1	13.60	0.90		12.24		
	RHS		1	13.60	0.90		12.24		
	LHS		1	141.00	0.90		126.90		
	RHS		1	152.00	0.90		136.80		
	Cross Road - 1		1	48.00	0.75		36.00		
							588.78	**2337.00**	**1375978.86**
7	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of Mix 1:2:4** with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2(P.No-13,I No-4.6)								
	Basic rate	5422.00							
	Area Weightage 6%	325.32							
	Total	**5747.32**							
		Cum							
	Nagenahalli								
	Suryavamshi Layout								
	Near Apartment		1	56.00	0.20	0.10	1.12		
	LHS		1	137.00	0.20	0.10	2.74		
	RHS		1	101.00	0.20	0.10	2.02		
	LHS		1	13.60	0.20	0.10	0.27		
	RHS		1	13.60	0.20	0.10	0.27		
	LHS		1	141.00	0.20	0.10	2.82		
	RHS		1	152.00	0.20	0.10	3.04		
							12.28	**5747.32**	**70,600.08**
8	Providing and fixing pre cast solid cement concrete **kerb stones made out of C.C. 1:2:4** with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete.(P.No-27,I No-5.30)								
	Basic rate	408.00							
	Area Weightage 6%	24.48							
	Total	**432.48**							
		Nos							
	Nagenahalli								
	Suryavamshi Layout								
	Near Apartment		1	56.00			56.00		
	LHS		1	137.00			137.00		
	RHS		1	101.00			101.00		
	LHS		1	13.60			13.60		

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	RHS		1	13.60			13.60		
	LHS		1	141.00			141.00		
	RHS		1	152.00			152.00		
							614.20		
							1365.00	**432.48**	**590335.20**
9	KSRRB 800-1. **Painting two coats** after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (P.No-180,I No-24.1)								
	Basic rate	80.00							
	Area Weightage 6%	4.80							
	Total	**84.80**							
		Sqm							
	Nagenahalli								
	Suryavamshi Layout								
	Near Apartment		1	56.00	0.30		16.80		
	LHS		1	137.00	0.30		41.10		
	RHS		1	101.00	0.30		30.30		
	LHS		1	13.60	0.30		4.08		
	RHS		1	13.60	0.30		4.08		
	LHS		1	141.00	0.30		42.30		
	RHS		1	152.00	0.30		45.60		
							184.26	**84.80**	**15,625.25**
10	KSRRB M300-14. **Excavation for roadwork** in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 8km lead= (I No-19.14,P No-143) 8km lead = (1.28x2x8)								
	Basic rate	41.00							
	Area Weightage 3%	1.23							
	Loading and Unloding & Lead	20.48							
	Total	**62.71**							
		Cum							
	Nagenahalli								
	Suryavamshi Layout								
	New Construction								
			1	56.00	4.50	0.30	75.60		
			1	125.00	8.50	0.30	318.75		
			1	23.00	8.50	0.30	58.65		
			1	105.00	8.00	0.30	252.00		
	Cross Road - 1		1	48.00	5.00	0.30	72.00		
	2nd cross LHS		1	62.00	5.80	0.30	107.88		
	2nd cross RHS		1	46.00	5.80	0.30	80.04		
	3rd cross		1	47.00	5.80	0.30	81.78		
							1046.70	**62.71**	**65,638.56**
11	**Construction of granular sub-base Grading-V** as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)								
	Basic rate	1882.00							
	Area Weightage 6%	112.92							

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Total	1994.92							
		Cum							
	Nagenahalli								
	Suryavamshi Layout								
	Bad reaches/edge correction								
	.								
	Vinayaka Badavane		1	34.00	1.50	0.15	7.65		
	2nd main Rd LHS								
	2nd main Rd RHS		1	122.00	1.50	0.15	27.45		
	3rd main Rd LHS		1	106.00	1.50	0.15	23.85		
	3rd main Rd RHS		1	91.00	1.50	0.15	20.48		
	4th main Rd LHS		1	82.00	1.20	0.15	14.76		
	4th main Rd RHS		1	91.00	1.20	0.15	16.38		
	5th main Rd		1	66.00	1.20	0.15	11.88		
	Nagenahalli		1	119.00	1.20	0.15	21.42		
	Suryavamshi Layout								
	New Construction								
			1	56.00	4.50	0.15	37.80		
			1	125.00	8.50	0.15	159.38		
			1	23.00	8.50	0.15	29.33		
			1	105.00	8.00	0.15	126.00		
	Cross Road - 1		1	48.00	5.00	0.15	36.00		
	2nd cross LHS		1	62.00	5.80	0.15	53.94		
	2nd cross RHS		1	46.00	5.80	0.15	40.02		
	3rd cross		1	47.00	5.80	0.15	40.89		
							667.22	1994.92	1331040.55
12	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)								
	Basic rate	1888.00							
	Area Weightage 6%	113.28							
	Total	2001.28							
		Cum							
	Nagenahalli								
	Suryavamshi Layout								
	Bad reaches/edge correction								
			1	34.00	1.50	0.200	10.20		
	Vinayaka Badavane								
	2nd main Rd LHS		1	122.00	1.50	0.200	36.60		
	2nd main Rd RHS		1	106.00	1.50	0.200	31.80		
	3rd main Rd LHS		1	91.00	1.50	0.200	27.30		
	3rd main Rd RHS		1	82.00	1.20	0.200	19.68		
	4th main Rd LHS		1	91.00	1.20	0.200	21.84		
	4th main Rd RHS		1	66.00	1.20	0.200	15.84		
	5th main Rd		1	119.00	1.20	0.200	28.56		
	Nagenahalli								
	Suryavamshi Layout								
	New Construction								
			1	56.00	4.50	0.200	50.40		

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
			1	125.00	8.50	0.200	212.50		
			1	23.00	8.50	0.200	39.10		
	Cross Road - 1		1	105.00	8.00	0.200	168.00		
	2nd cross LHS		1	48.00	5.00	0.200	48.00		
	2nd cross RHS		1	62.00	5.80	0.200	71.92		
	3rd cross		1	46.00	5.80	0.200	53.36		
			1	47.00	5.80	0.200	54.52		
							889.62	**2001.28**	**1780378.71**
13	KSRRB M500-6. **Providing and applying primer coat** with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)								
	Basic rate	32.00							
	Area Weightage 6%	1.92							
	Total	**33.92**							
		Sqm							
	Nagenahalli								
	Suryavamshi Layout								
	Bad reaches/edge correction								
			1	34.00	1.50		51.00		
	Vinayaka Badavane								
	2nd main Rd LHS		1	122.00	1.50		183.00		
	2nd main Rd RHS		1	106.00	1.50		159.00		
	3rd main Rd LHS		1	91.00	1.50		136.50		
	3rd main Rd RHS		1	82.00	1.20		98.40		
	4th main Rd LHS		1	91.00	1.20		109.20		
	4th main Rd RHS		1	66.00	1.20		79.20		
	5th main Rd		1	119.00	1.20		142.80		
	Nagenahalli								
	Suryavamshi Layout								
	New Construction								
			1	56.00	4.50		252.00		
			1	125.00	8.50		1062.50		
			1	23.00	8.50		195.50		
			1	105.00	8.00		840.00		
	Cross Road - 1		1	48.00	5.00		240.00		
	2nd cross LHS		1	62.00	5.80		359.60		
	2nd cross RHS		1	46.00	5.80		266.80		
	3rd cross		1	47.00	5.80		272.60		
							4448.10	**33.92**	**150879.55**
14	KSRRB M500-17. Providing and laying **dense graded bituminous macadam** using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-160,I No-21.17.6)								
	Basic rate	7008.00							
	Area Weightage 6%	420.48							
	Total	**7428.48**							
		Cum							

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Nagenahalli								
	Suryavamshi Layout								
	Bad reaches/edge correction								
	Vinayaka Badavane		1	34.00	1.50	0.05	2.55		
	2nd main Rd LHS								
	2nd main Rd RHS		1	122.00	1.50	0.05	9.15		
	3rd main Rd LHS		1	106.00	1.50	0.05	7.95		
	3rd main Rd RHS		1	91.00	1.50	0.05	6.83		
	4th main Rd LHS		1	82.00	1.20	0.05	4.92		
	4th main Rd RHS		1	91.00	1.20	0.05	5.46		
	5th main Rd		1	66.00	1.20	0.05	3.96		
	Nagenahalli		1	119.00	1.20	0.05	7.14		
	Suryavamshi Layout								
			1	56.00	4.50	0.05	12.60		
			1	125.00	8.50	0.05	53.13		
			1	23.00	8.50	0.05	9.78		
			1	105.00	8.00	0.05	42.00		
	Cross Road - 1		1	48.00	5.00	0.05	12.00		
	2nd cross LHS		1	62.00	5.80	0.05	17.98		
	2nd cross RHS		1	46.00	5.80	0.05	13.34		
	3rd cross		1	47.00	5.80	0.05	13.63		
							222.41	**7428.48**	**1652131.09**
15	KSRRB 500-7. **Providing and applying tack coat** using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7)								
	Basic rate	12.00							
	Area Weightage 6%	0.72							
	Total	**12.72**							
		Sqm							
	Nagenahalli								
	Suryavamshi Layout								
			1	56.00	4.50		252.00		
			1	125.00	8.50		1062.50		
			1	23.00	8.50		195.50		
			1	139.00	8.00		1112.00		
	Cross Road - 1		1	48.00	5.00		240.00		
	2nd cross LHS		1	62.00	5.80		359.60		
	2nd cross RHS		1	46.00	5.80		266.80		
	3rd cross		1	47.00	5.80		272.60		
	Vinayaka Badavane								
	2nd main Rd LHS		1	122.00	5.80		707.60		
	2nd main Rd RHS		1	106.00	5.00		530.00		
	3rd main Rd LHS		1	91.00	5.60		509.60		
	3rd main Rd RHS		1	82.00	5.60		459.20		
	4th main Rd LHS		1	91.00	6.00		546.00		
	4th main Rd RHS		1	66.00	5.50		363.00		
	5th main Rd		1	119.00	5.50		654.50		
							7530.90	**12.72**	**95,793.05**

	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Providing and laying **bituminous concrete 40mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015. using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic)(P.No-171,I No-21.78.12)								
	Basic rate	8207.00							
	Area Weightage 6%	492.42							
	Total	**8699.42**							
		Cum							
Nagenahalli									
Suryavamshi Layout									
			1	56.00	4.50	0.04	10.08		
			1	125.00	8.50	0.04	42.50		
			1	23.00	8.50	0.04	7.82		
Cross Road - 1			1	139.00	8.00	0.04	44.48		
2nd cross LHS			1	48.00	5.00	0.04	9.60		
2nd cross RHS			1	62.00	5.80	0.04	14.38		
3rd cross			1	46.00	5.80	0.04	10.67		
Vinayaka Badavane			1	47.00	5.80	0.04	10.90		
2nd main Rd LHS			1	122.00	5.80	0.04	28.30		
2nd main Rd RHS			1	106.00	5.00	0.04	21.20		
3rd main Rd LHS			1	91.00	5.60	0.04	20.38		
3rd main Rd RHS			1	82.00	5.60	0.04	18.37		
4th main Rd LHS			1	91.00	6.00	0.04	21.84		
4th main Rd RHS			1	66.00	5.50	0.04	14.52		
5th main Rd			1	119.00	5.50	0.04	26.18		
							301.24	**8699.42**	**2620578.48**
	KSRRB M800-13.**Road Marking with Hot Applied Thermoplastic Compound** with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	Basic rate	429.00							
	Area Weightage 6%	25.74							
	Total	**454.74**							
		Sqm							
Nagenahalli									
Suryavamshi Layout									
			2	56.00	0.10		11.20		
			2.5	125.00	0.10		31.25		
			2.5	23.00	0.10		5.75		
			2.5	139.00	0.10		34.75		
Cross Road - 1			2	48.00	0.10		9.60		
2nd cross LHS			2	62.00	0.10		12.40		
2nd cross RHS			2	46.00	0.10		9.20		
3rd cr			2	47.00	0.10		9.40		

Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
Vinayaka Badavane								
2nd main Rd LHS		2	122.00	0.10		24.40		
2nd main Rd RHS		2	106.00	0.10		21.20		
3rd main Rd LHS		2	91.00	0.10		18.20		
3rd main Rd RHS		2	82.00	0.10		16.40		
4th main Rd LHS		2	91.00	0.10		18.20		
4th main Rd RHS		2	66.00	0.10		13.20		
5th main Rd		2	96.00	0.10		19.20		
						254.35	454.74	115663.12
							Total Construction Cost	13276147.23
							Towards GST 12%	1593137.67
							PMC Charges	130000.00
							Sub Total	14999284.90
							Utility Shifting,Miscellaneous and Rounding off	715.10
							GRAND TOTAL	15000000.00

(9)

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3. The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, issue rates dated 21-10-2019 and Data Rates

Assistant Engineer
Ward no 02
BBMP Bangalore

Asst. Executive Engineer
Yelahanka Sub Division
BBMP Bangalore

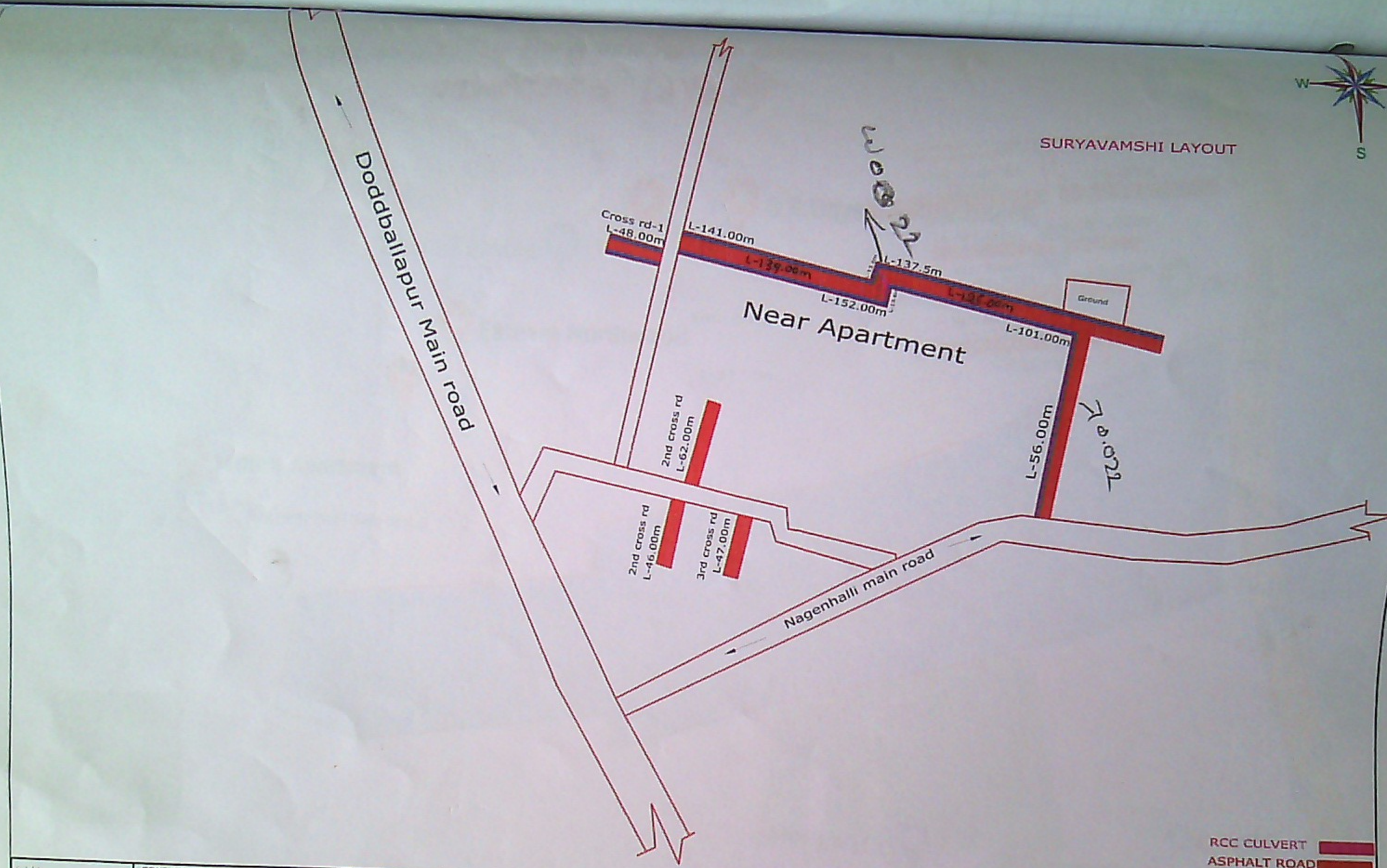
Executive Engineer
Yelahanka Division
BBMP Bangalore

Adm Sanction for Rs. .....1Sa.au lakhs
..... one Crore fifty lakhs....
....only.....
is accounted under head ..P.....3602.....
.....Special.....development...works
.....2019-20.....
Registered as CE No. ..... Subject
to conditions contained in enclosed memo
No. EE/YNK/AS/33/2020-20....Dt 18.9.2020

Executive Engineer

Technical Sanction
Accorded For Rs 150 lakhs only
Head of A/C..P3602.....
CER NO :...227..... Dt 28.01.2020

TA CE (YNK)



BRUHAT BANGALORE MAHANAGARA PALIKE

CONSULTANTS-
Silicon Consulting Engineers
#S1317, 4th CROSS BEL
2nd STAGE BHARATH NAGAR
BANGALORE 560 091.
E-mail siliconcivilengineers@gmail.com

Assistant Engineer | Assistant Executive Engineer | Executive Engineer

Key Title
Construction and development of roads and drain at Nagenhalli layout, Vinayaka layout main and cross roads surrounding area in ward no 02
Yelehanka sub division.

Scale: N.T.S
Date:
Sheet No:

8

Ultimate Comforts Apartment

The Retreat

VINAYAKA LAYOUT.

Plumeria Street

Shiva Temple

B R Odyssey Apartment

1st main rd

2nd main rd
L-122.00m

L-106.00m

3rd Main Rd
L-91.00m

L-82.00m

4th Main Rd
L-91.00m

L-66.00m

5th Main Rd
L-119.00m

Esteem Northwood

10th C Main Rd

L-37.00m

Mithra Apartment

Esteem Northwood Ln

Dodballapur Main road

Sri Ganesha Temple

Centum

KPTCL

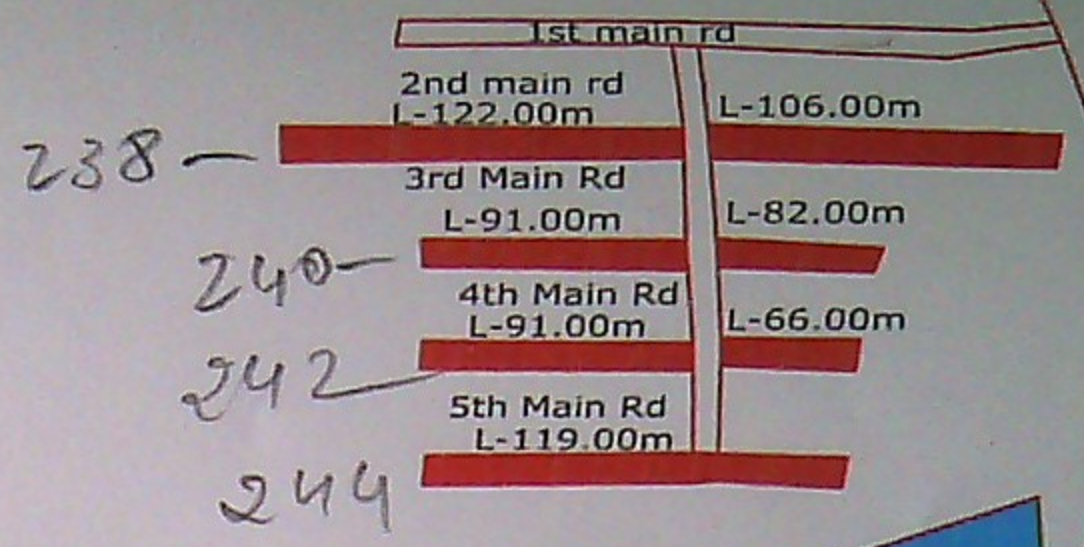
Google

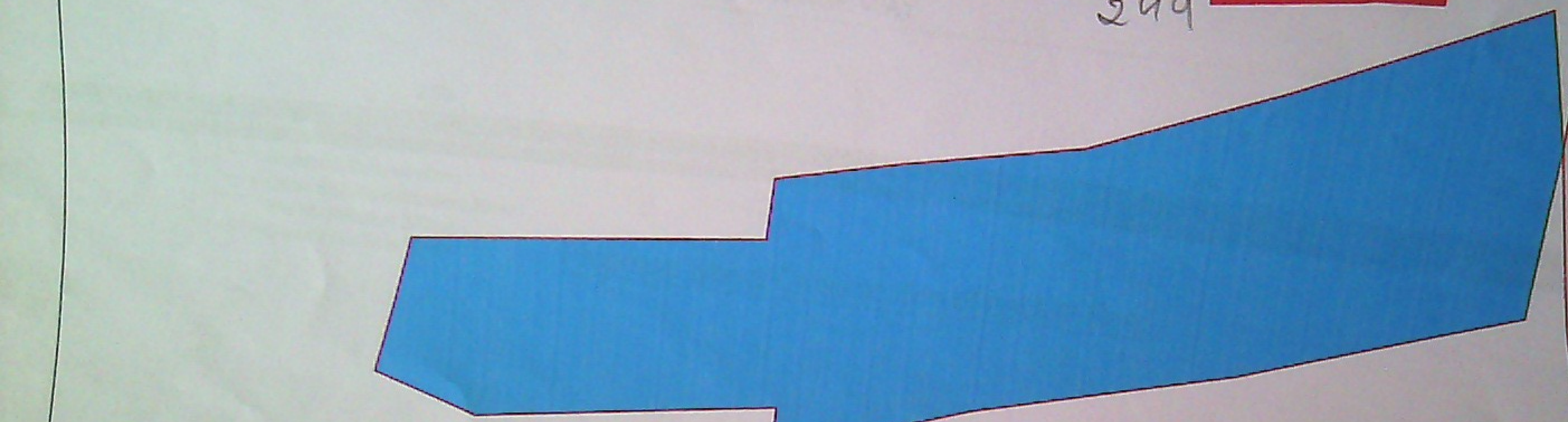
ASPHALT ROAD

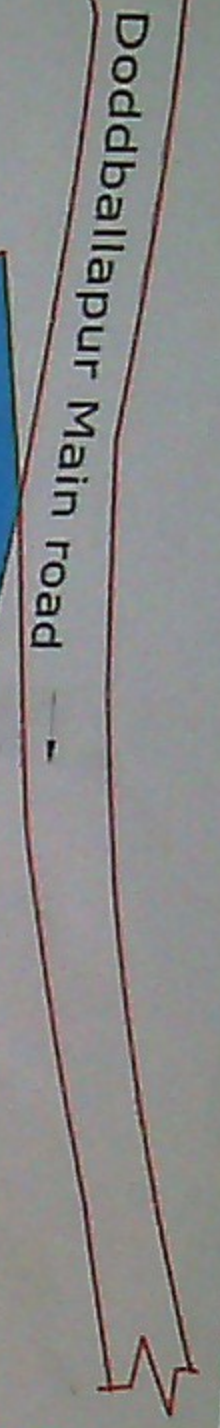
Satellite

BRUHAT BANGALORE MAHANAGARA PALIKE	CONSULTANT - Silicon Consulting Engineers #S1317, 4th CROSS BEL 2nd STAGE BHARATH NAGAR BANGALORE 560 091 E-mail: siliconcivilengineers@gmail.com	Assistant Engineer	Assistant Executive Engineer	Executive Engineer	Construction and development of roads and drain at Nagenhalli layout, Vinayaka layout main and cross roads surrounding area in ward no 02 Yelehanka sub division.

VINAYAKA LAYOUT







ASPHALT ROAD

BRUHAT BANGALORE MAHANAGARA PALIKE

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#31317, 4th CROSS BEL
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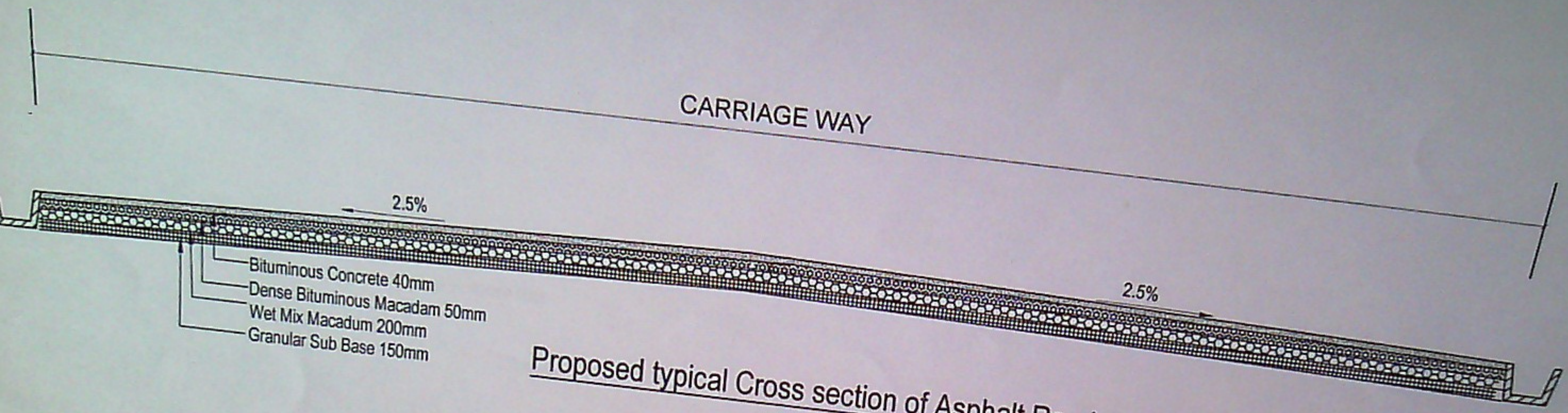
BANGALORE 560 091.
E-mail siliconcivilengineers@gmail.com

Assistant Engineer | Assistant Executive Engineer | Executive Engineer

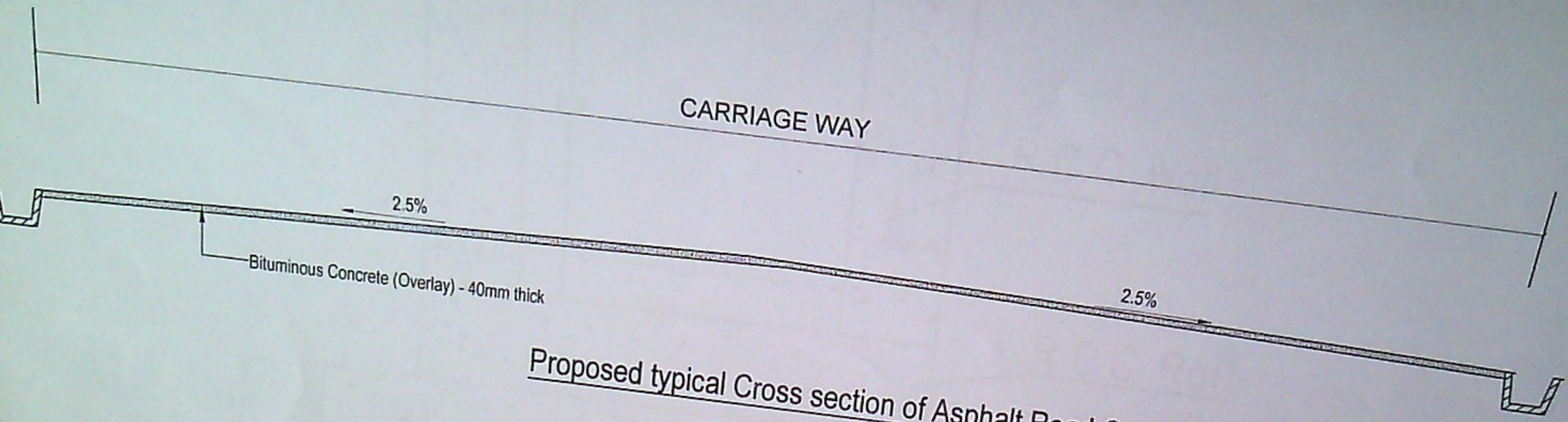
Dwg Title
Construction and development of roads and drain at Nagenhalli layout, Vinayaka layout main and cross roads surrounding area in ward no 02 Yelehanka sub division.

Scale: N.T.S



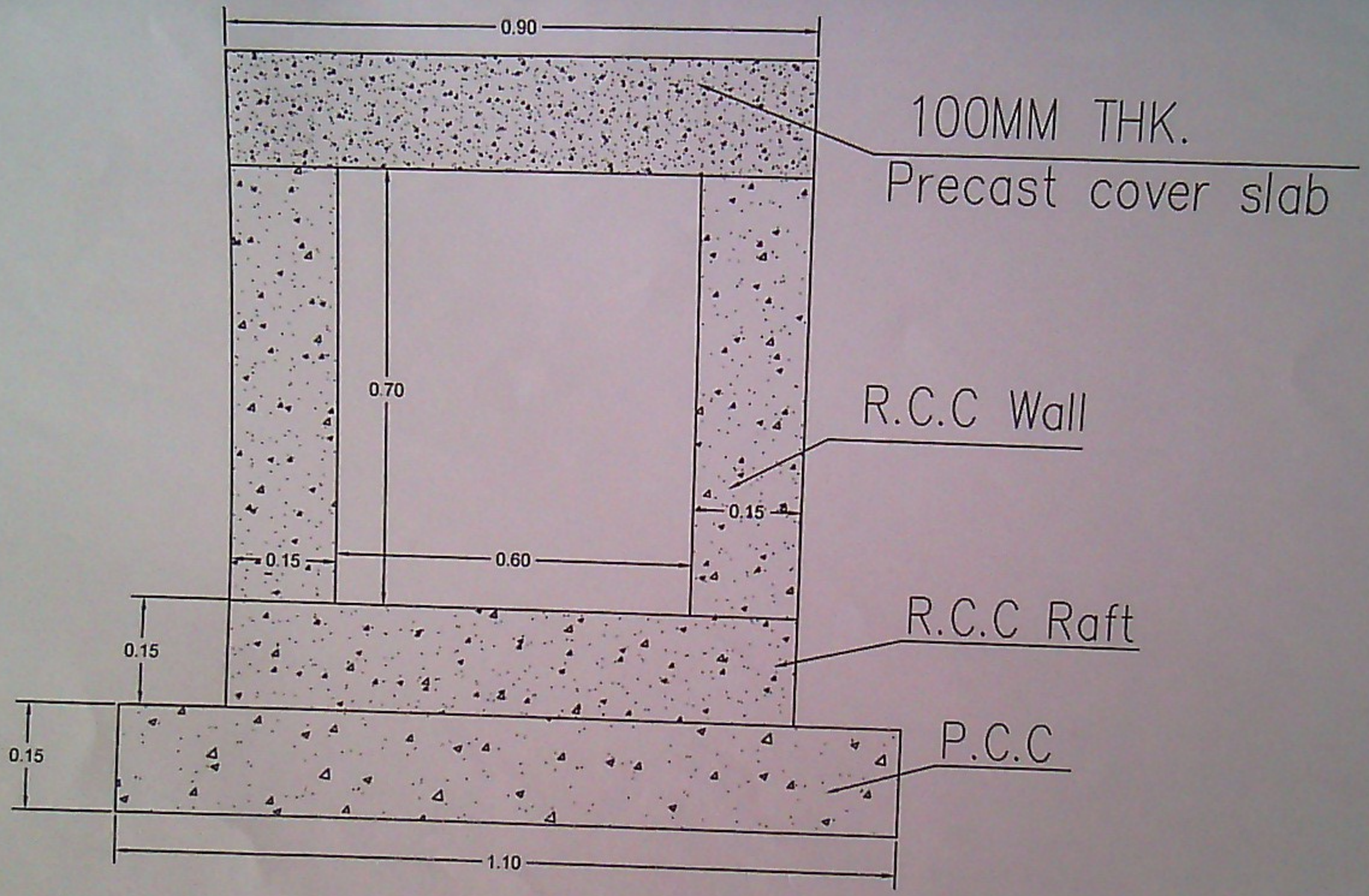
Proposed typical Cross section of Asphalt Road

AE-02



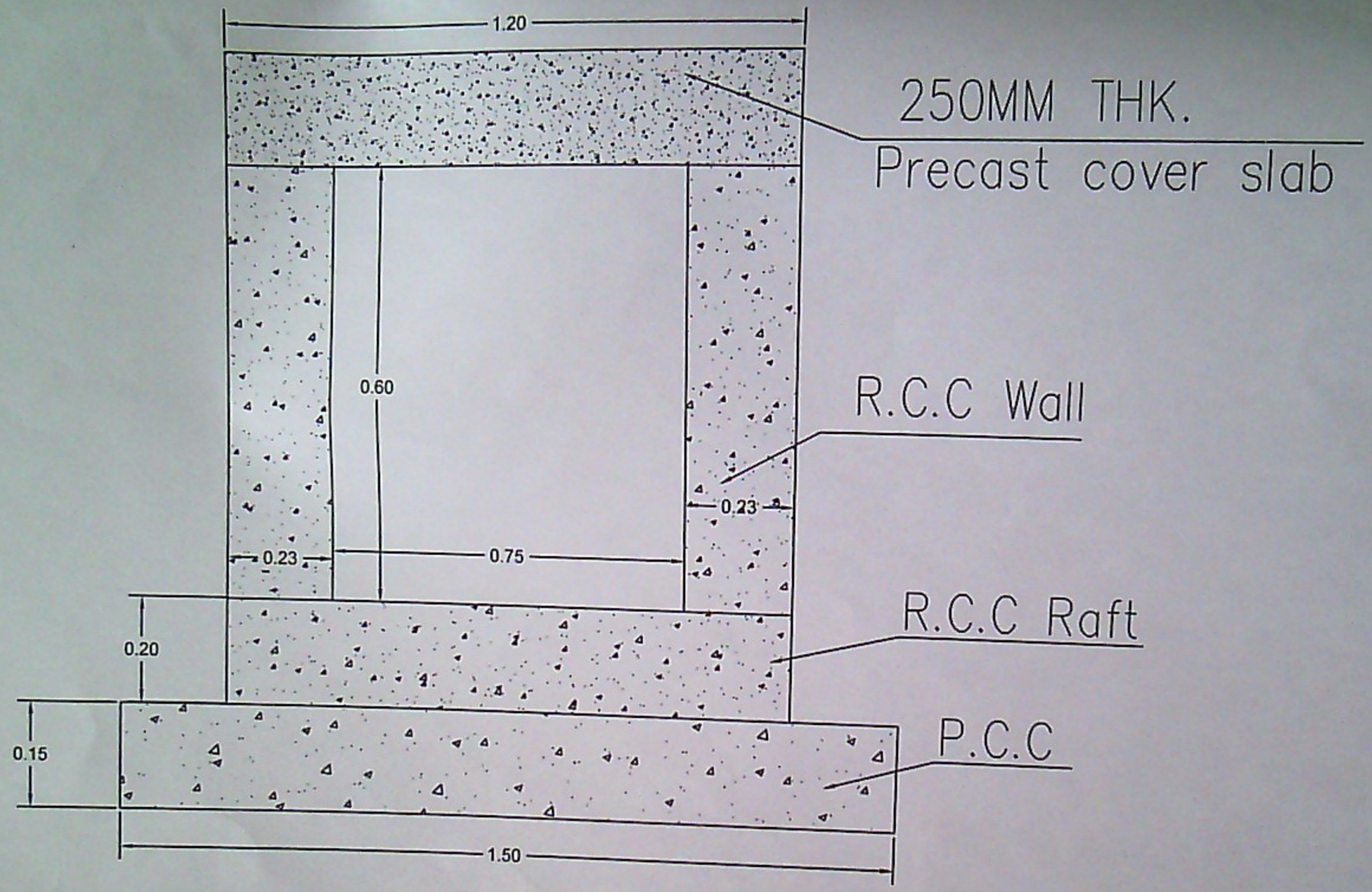
Proposed typical Cross section of Asphalt Road Overlay

AE-02



TYPICAL CROSS SECTION OF DRAIN

AE-01



TYPICAL CROSS SECTION OF CULVERT

Cross AE-02